

=> fil reg

FILE 'REGISTRY' ENTERED AT 16:26:36 ON 30 DEC 2004  
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FILE 'LREGISTRY' ENTERED AT 14:49:47 ON 30 DEC 2004  
L1 STR

FILE 'REGISTRY' ENTERED AT 14:54:46 ON 30 DEC 2004

L2 0 S L1 SAM  
L3 STR L1  
L4 1 S L3 SAM  
L5 SCR 1969  
L6 1 S L3 AND L5  
L7 SCR 1971  
L8 1 S L3 AND L7  
L9 SCR 1607 OR 1609  
L10 2 S L3 AND L9  
L11 191 S L10 FUL  
L12 0 S C9H2OCLF16N/MF AND L11  
L13 0 S C9H2OCLF16N/MF  
L14 0 S C9HOCL2F16N/MF  
E C9H2CLF16NO/MF  
L15 4 S E3  
E C9HCL2F16NO/MF  
L16 3 S E3  
L17 6 S L11 AND (L15 OR L16)  
SAV L11 CAM689/A

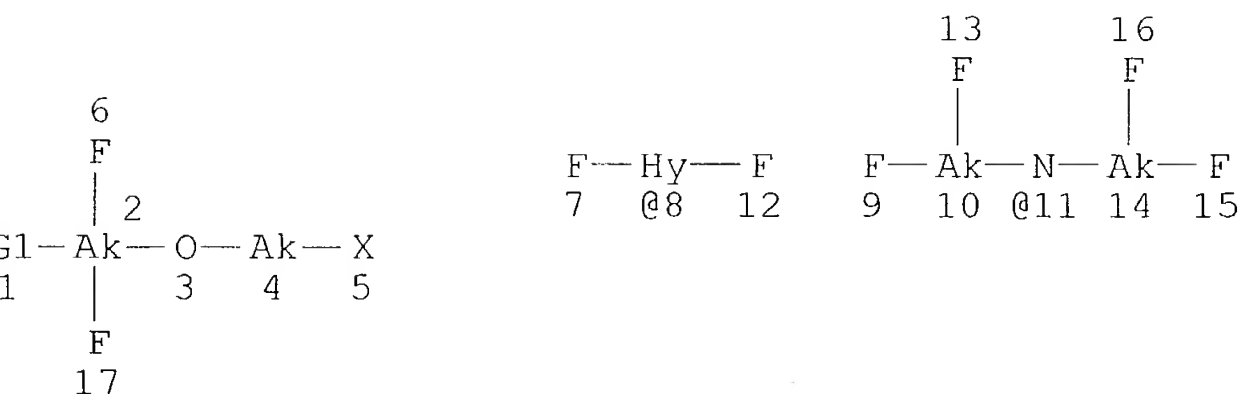
FILE 'HCA' ENTERED AT 15:39:00 ON 30 DEC 2004

L18 1 S L17  
L19 43 S L11  
L20 1 S L19 AND COAT?  
L21 0 S L19 AND (CLEAN? OR REMOV?) (5A) SUBSTRAT?  
L22 1 S L19 AND (CLEANING(3A) SURFAC?)  
L23 0 S L19 AND PERFLUOROAMINE  
L24 1 S L19 AND CLEAN?  
L25 1 S L18 OR L20 OR L21 OR L22 OR L23 OR L24

FILE 'REGISTRY' ENTERED AT 16:26:36 ON 30 DEC 2004

=> d que stat 118

L3 STR



VAR G1=8/11

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

COUNT IS M1 N AT 8

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L9 SCR 1607 OR 1609  
 L11 191 SEA FILE=REGISTRY SSS FUL L3 AND L9  
 L15 4 SEA FILE=REGISTRY ABB=ON PLU=ON C9H2CLF16NO/MF  
 L16 3 SEA FILE=REGISTRY ABB=ON PLU=ON C9HCL2F16NO/MF  
 L17 6 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND (L15 OR L16)  
 L18 1 SEA FILE=HCA ABB=ON PLU=ON L17

> fil hca

FILE 'HCA' ENTERED AT 16:27:21 ON 30 DEC 2004

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> d l18 ibib abs hitstr hitind

L18 ANSWER 1 OF 1 HCA COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 130:254057 HCA  
 TITLE: Perfluoroalkyl haloalkyl ethers and compositions  
 and applications thereof  
 INVENTOR(S): Behr, Frederick E.; Flynn, Richard M.  
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, USA  
 SOURCE: PCT Int. Appl., 36 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9914175	A1	19990325	WO 1997-US24243	19971219
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6552090	B1	20030422	US 1997-931105	19970915
AU 9856244	A1	19990405	AU 1998-56244	19971219
EP 1015405	A1	20000705	EP 1997-952693	19971219
BR 9714860	A	20000725	BR 1997-14860	19971219
JP 2003526596	T2	20030909	JP 2000-511729	19971219
US 6743262	B1	20040601	US 1999-227241	19990108
US 6149980	A	20001121	US 1999-231202	19990114
US 6653512	B1	20031125	US 1999-231203	19990114
US 2004086650	A1	20040506	US 2003-689110	20031020

## PRIORITY APPLN. INFO.:

US 1997-931105

A

199709  
15

WO 1997-US24243

W

199712  
19

US 1999-231203

A3

199901  
14

## OTHER SOURCE(S): MARPAT 130:254057

AB Perfluoroalkyl haloalkyl ethers are manufacture for use as solvents with

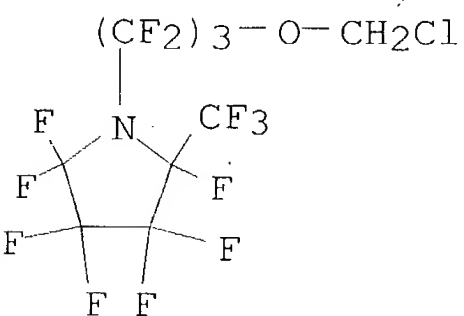
decreased O3-depletion potential for cleaning surfaces and in coatings. The title compns. optionally contain a nonionic surfactant.

IT 221617-97-6P 221617-98-7P 221617-99-8P  
221618-00-4P 221618-01-5P 221618-02-6P

(perfluoroalkyl haloalkyl ethers for use as solvents with decreased ozone-depletion potential for cleaning surfaces and in coatings)

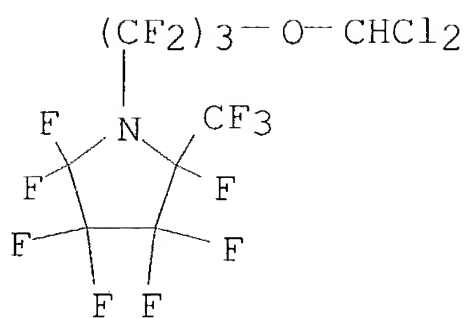
RN 221617-97-6 HCA

CN Pyrrolidine, 1-[3-(chloromethoxy)-1,1,2,2,3,3-hexafluoropropyl]-2,2,3,3,4,4,5-heptafluoro-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

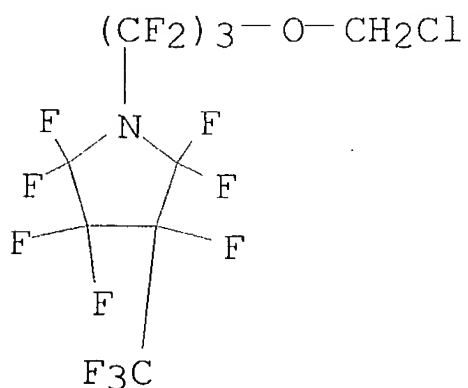


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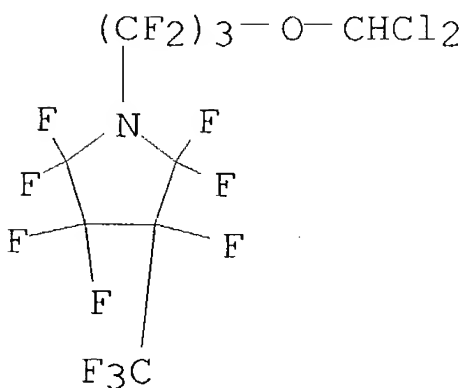
CN Pyrrolidine, 1-[3-(dichloromethoxy)-1,1,2,2,3,3-hexafluoropropyl]-2,2,3,3,4,4,5-heptafluoro-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 221617-99-8 HCA

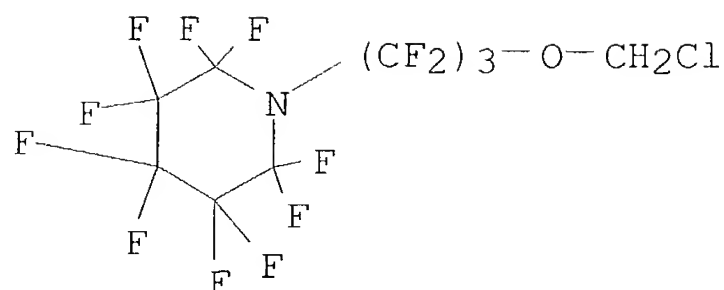
CN Pyrrolidine, 1-[3-(chloromethoxy)-1,1,2,2,3,3-hexafluoropropyl]-  
2,2,3,3,4,5,5-heptafluoro-4-(trifluoromethyl)- (9CI) (CA INDEX  
NAME)

RN 221618-00-4 HCA

CN Pyrrolidine, 1-[3-(dichloromethoxy)-1,1,2,2,3,3-hexafluoropropyl]-  
2,2,3,3,4,5,5-heptafluoro-4-(trifluoromethyl)- (9CI) (CA INDEX  
NAME)

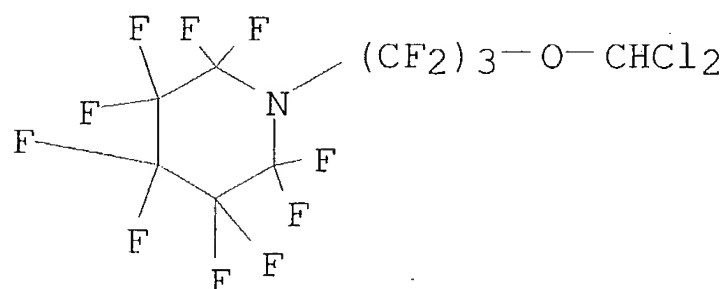
RN 221618-01-5 HCA

CN Piperidine, 1-[3-(chloromethoxy)-1,1,2,2,3,3-hexafluoropropyl]-  
2,2,3,3,4,4,5,5,6,6-decafluoro- (9CI) (CA INDEX NAME)



RN 221618-02-6 HCA

CN Piperidine, 1-[3-(dichloromethoxy)-1,1,2,2,3,3-hexafluoropropyl]-  
2,2,3,3,4,4,5,5,6,6-decafluoro- (9CI) (CA INDEX NAME)



IC ICM C07C043-12

ICS C07D211-06; C11D007-30

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
Section cross-reference(s): 23, 42, 46

IT 221617-83-0P, Chloromethyl perfluoropropyl ether 221617-84-1P

221617-86-3P 221617-87-4P 221617-92-1P 221617-93-2P

221617-97-6P 221617-98-7P 221617-99-8P

221618-00-4P 221618-01-5P 221618-02-6P

221618-05-9P 221618-06-0P 221642-60-0P 221642-61-1P

(perfluoroalkyl haloalkyl ethers for use as solvents with  
decreased ozone-depletion potential for cleaning surfaces and in  
coatings)

REFERENCE COUNT:

6

THERE ARE 6 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT